Columbia River Salmon and Steelhead Endorsement Advisory Board

Application for Funding

Applicant: Jeff Korth, WDFW, Region 2

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Proposal Title: MONITORING OF 2016/2017 UPPER COLUMBIA RIVER FISHERIES

Type of Proposal: Maintain current fisheries with unfunded mandates.

Date of submission: CRSSRAB mtg February 25, 2016

Effective Period of Funding: May 1, 2016 - April 30, 2017

Amount of Funding Requested: $525,010

Activity to be funded: Creel monitoring and tag recovery of Upper Columbia River and tributaries steelhead, sockeye, coho, and summer/fall Chinook fisheries.

Status Summary: <u>This is a renewal of a proposal approved the last six years.</u> The formerly separate expense items including the Wenatchee spring Chinook fishery proposal and overall District Biologist analyses, reporting, and oversight have been added to this proposal. The funding includes the maximum period of time fisheries may run, motor pool vehicles, and top step salaries & benefits in order to provide certainty that all contingencies are covered. Actual funding needs depend on the total length of the fisheries and experience level of the staff hired.

Background:

Upper Columbia River (UCR) steelhead, coho, summer/fall Chinook, and sockeye fisheries in the mainstem and tributaries (primarily Wenatchee, Entiat, Methow, and Okanogan rivers) are all conducted under Section 10 permits due to the presence of ESA listed species. A creel survey to monitor the impacts to listed species during these fisheries is a mandatory requirement of these permits. Most of monitoring of these fisheries had been funded through DJ and WLS programs before 2010, at that time amounting to over $300,000 for all fisheries. Beginning in 2010, a loss in available DJ and WLS funds agency-wide, coupled with the increased costs to monitor these fisheries (primarily more stable and additional fisheries, and transportation costs), resulted in the

loss of the majority of the funding necessary to monitor these fisheries. Without replacement funding, these fisheries would be severely curtailed. Funding was sought and obtained from the Columbia River Salmon and Steelhead Endorsement (CRSSE) dedicated fund to continue the necessary monitoring of these fisheries.

Proposed Activity: Creel Monitoring, data management, analyses, and reporting

Washington Department of Fish and Wildlife (WDFW) is required to conduct creel monitoring of summer Chinook salmon, sockeye, and steelhead fisheries in the upper Columbia River to determine harvest and impacts of recreational fishing on ESA listed steelhead and spring Chinook. Both natural and hatchery origin fish are listed. WDFW will monitor the fisheries at a 25% or greater sample rate. It is anticipated that up to eight creel checkers will be needed to cover up to 81 staff months of Scientific Technician 2-3 (maximum job classification) time and associated travel, goods, and services to effectively prepare for, monitor, and manage the data for these fisheries from May 2016 through April 2017. Three and a half staff months for creel analyses, reporting, and supervision by District Biologists are also covered herein.

Fishery Locations and Description:

1) **Summer/fall Chinook Fisheries:** For the requested funding period, summer Chinook fisheries are creeled from Priest Rapids Dam to Chief Joseph Dam, a distance of about 160 miles, and the Wenatchee, Entiat, Chelan, Okanogan, and Similkameen rivers, a distance of about 140 miles. The summer Chinook run for the UCR will likely number 70-100,000 salmon in 2016, about 60-70% wild. The UCR recreational fisheries will be Marked Selective Fisheries (MSF) to conserve wild summer Chinook for escapement. The fishery will catch 7,000-8,000 salmon total and harvest at least 3,000 hatchery origin salmon. The summer Chinook fishery will open July 1 and normally runs until the end of October. If there are continued fall Chinook over runs from the Hanford Reach programs, as there were for 2013, 2014, and 2015, the fishery will be extended through the end of November. While the presence of listed upper Columbia steelhead and spring Chinook requires the monitoring of this fishery, monitoring the wild fish impacts of the summer Chinook fishery has also become increasingly important as the Colville tribe's Chief Joseph Hatchery broodstock needs compete with escapement. This aspect of the harvest has come under greater scrutiny and the fishery became a 100% marked selective fishery in 2013.

3) **Spring Chinook Fisheries:** For the requested funding period, spring Chinook fisheries are creeled only in the Wenatchee and Icicle rivers, a distance of about 30 miles. While the Icicle River fishery has been consistent, it is too early to accurately forecast the Wenatchee run and fishery. The recreational spring Chinook fisheries have a very important conservation role in controlling the number of hatchery origin fish on the spawning grounds, and the fishery is an important aspect of garnering public support for adult hatchery fish management as a whole. The fishery normally opens early May and potentially runs through July. The Wenatchee spring Chinook

fishery is severely constrained due the catch and release impacts to wild Chinook, and the length of time this fishery remains open is variable.

2) **Sockeye Fisheries:** For the requested funding period, sockeye fisheries are creeled from Priest Rapids Dam to Chief Joseph Dam, a distance of about 160 miles, and the Lake Wenatchee fishery. The sockeye run for the upper Columbia River and Lk Wenatchee combined will number up to 500,000 salmon in 2016. The recreational fisheries will harvest up to 50,000 sockeye salmon. The fisheries will open in June/July and would normally run until the end of September. Relatively large, stable runs of sockeye in recent years have created the equivalent of a 'new' fishery which has become much anticipated by anglers statewide.

3) **Steelhead Fisheries:** For the requested funding period, steelhead fisheries are creeled from Priest Rapids Dam to Chief Joseph Dam, a distance of about 160 miles, and the Wenatchee, Entiat, Methow, Okanogan, and Similkameen rivers, a distance of about 175 miles. Presently it is too early to accurately forecast the steelhead run for the upper Columbia River. The recreational steelhead fisheries have a very important conservation role in controlling the number of hatchery origin fish on the spawning grounds. It is anticipated that 5-8,000 hatchery origin steelhead could be removed through these fisheries. The fishery normally opens early October and potentially runs through March. Steelhead fisheries are severely constrained due the catch and release impacts to wild steelhead, and the length of time the fisheries remain open is variable. Harvest is typically highest during the first few months and the last months of the fishery.

4) **Coho Fisheries:** Coho fisheries have become more likely as the populations initiated by the Yakama Tribe grow. There have been fisheries in several tributaries the last two years, and a mainstem Columbia River fishery may be possible soon. Coho fisheries generally run October through November.

Assistance Required:
WDFW requests funding for biologist and creel staff and motor vehicle leases, mileage and maintenance. The funding request is anticipated to be the maximum required if all fisheries remain open the maximum period of time, and all staff qualifies for top step wages. More accurate budget updates can be provided as fisheries are implemented.

Budget Summary:

Estimated Fishery Monitoring Costs	
Salaries and Benefits	
Fish and Wildlife Biologist 3 (3.5 staff months @ ≤ $7,424/mo salaries/benefits)	$25,984
Scientific Technician 3 (24 staff months @ ≤ $5,538/mo salaries and benefits)	$132,912
Scientific Technician 2 (57 staff months @ ≤ $4,912/mo salaries and benefits)	$279,984
Sub total	**$438,880**
Goods and Services	
Vehicle leases (8 @ $325/month ea, 12 months)	$31,200
- includes 500 miles/month, fuel, and maintenance	
Vehicle operation and maintenance ($0.46/ additional mile)	$50,370
- 1,500 additional miles/mo * 73 sm = 109,500 miles	
Personnel Services	$1,560
Misc Goods & Services (e.g. uniforms, boots)	$3,000
Sub total	**$86,130**
Total Budget Amount Requested	**$525,010**

Need for Proposed Activity: Upper Columbia River salmon and steelhead fisheries in the mainstem and tributaries (primarily Wenatchee, Entiat, Methow, and Okanogan rivers) are all conducted under Section 10 permits due to the presence of ESA listed species. The permits both define the allowable impacts and require a high degree of monitoring to assess impacts to the listed species. The primary objective of the creel monitoring patrols is to determine ESA impacts of listed populations. In addition to monitoring ESA impact, estimates of angler effort, catch and harvest estimates, and recovery of coded-wire tags and PIT tags are determined.

Benefit of Proposed Activity: Below are estimates of total angler-hours, angler-trips, harvest, and estimated economic value to the local economy for salmon and steelhead fisheries in the Upper Columbia River. Variation in the participation, harvest, and economic value was due to run size, flow, temperature, and angling conditions on the river. For 2015 season, over 40,000 angler trips worth over $2.3 M in economic activity were made possible by the annual CRSSE investment of $423K. This is over a fivefold payout (5.4x), and the steelhead season still has three months to run.

Salmon angling effort, harvest, and economic value 2004-2015.

Year	Effort (Hours)	Angler Trips	Chinook Harvest [1] (adults+ jacks)	Sockeye Harvest[2]	Estimated Economic Value [3]
2004	110,607	26,640	6,145	5,410	$1,545,120
2005	43,458	10,644	2,192	na	$617,352
2006	79,134	17,080	4,246	na	$990,640
2007	72,583	18,403	3,900	na	$1,067,374
2008 [4]	92,563	19,104	3,170	5,549	$1,108,032
2009	60,021	13,520	2,561	3,574	$784,160
2010 [5]	73,075	20,334	3,111	14,831	$1,179,372
2011	97,652	19,570	4,984	2,855	$1,135,060
2012	177,610	35,135	5,497	40,989	$2,037,830
2013	131,556	29,993	3,510 [6]	12,081	$1,739,594
2014	197,091	40,374	2,875	46,085	$2,341,692
2015	177,627	36,906	5,640	32,214	$2,140,548

[1] Includes Spring (beginning 2015), Summer, and Fall Chinook
[2] Includes both Lk Wenatchee and Okanogan sockeye.
[3] @ $58/angler trip (based on Wegge 2008)
[4] First season Okanogan sockeye retention allowed.
[5] CRSSE funding begins.
[6] Summer Chinook Marked Selective Fishery begins.

Steelhead angling effort, harvest, and economic value 2001-2015.

Year	Effort (Hours)	Angler Trips	Steelhead Total Catch	Steelhead Harvest	Estimated Economic Value [1]
2001-02 [2]	4,584	3,059	767	581	$177,422
2002-03	24,642	8,297	4,668	670	$481,226
2003-04	22,949	6,701	3,201	914	$388,658
2004-05	40,923	14,446	4,245	1,516	$837,868
2005-06	30,042	11,623	3,323	1,540	$674,134
2006-07 [3]	10, 829	3,738	937	685	$216,804
2007-08 [4]	41,386	10,258	4,404	2,269	$594,964
2008-09	33,098	7,734	2,153	1,173	$448,572
2009-10 [4,5]	109,962	29,461	15,586	8,816	$1,708,738
2010-11 [6]	93,504	23,910	11,610	5,219	$1,386,780
2011-12	57,691	15,510	5,898	2,816	$899,580
2012-13	57,545	15,639	5,739	2,850	$907,062
2013-14	41,276	11,388	4,004	1,595	$660,504
2014-15	53,525	13,636	4,104	1,540	$790,888
2015-16 [7]	12,081	3,025	1,937	493	$175,450

[1] @ $58/angler trip (based on Wegge 2008)
[2] Okanogan and Similkameen rivers only
[3] Columbia River mainstem only
[4] Wenatchee R added to fishery
[5] Mandatory retention of ad-clipped hatchery steelhead begins
[6] CRSSE funding begins.
[7] Through December 23; Methow closed early, Wenatchee opened late, both on Nov 20

Additional Considerations: Management of the returning adult populations of salmon and steelhead, in particular control of the number of hatchery adults on the spawning grounds, is critical to the recovery of the population. Removal of excess hatchery adults via a fishery is one of the adult management actions considered in the HGMPs; however, it would not likely be sufficient in and of itself to remove sufficient numbers of hatchery adults to have the desired impact. Removal of excess adult hatchery fish at dams or traps would also be necessary to accomplish the entire extraction. As removal of adults without the social benefit of removal through a fishery would be unacceptable to the public, likely resulting in the termination of adult extraction at the dam, it is desirable that both a fishery and removal at the dam are promulgated simultaneously. A fishery and the associated economic benefits would also likely promote public acceptance and willing participation in recovery efforts.